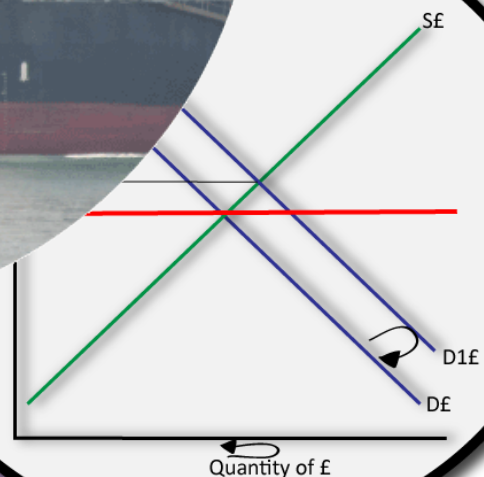




Unit 3—International Economics



Unit 3—International Economics

Reasons and benefits to trade

- To acquire exotic goods
- To encourage political stability and friendship
- To reach a larger market
- To gain from comparative advantage and specialization
- To acquire essential goods, not natural to host country
- To increase GDP



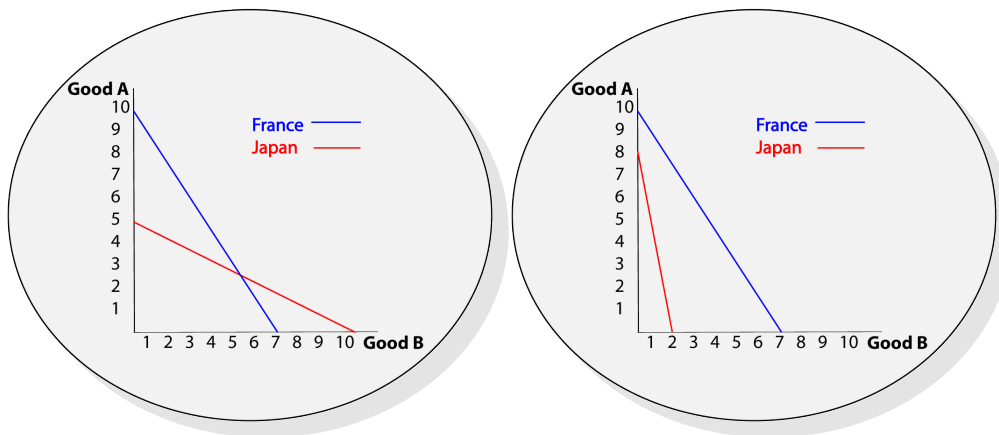
Remember: these work on 2 countries, 2 goods assumptions

Absolute Advantage

- The ability of one country to produce a good using fewer resources than another country.
- This country has a complete advantage in producing this good.
- Countries which have absolute advantages in different products, should specialize in these goods before trading
- They have absolute advantage as they have a lower opportunity cost in producing one good over the other country
- Specialization will give them increased revenue and help them produce outside their PPC

Comparative Advantage (HL)

- Although one country has an absolute advantage in producing both goods, it is still beneficial to trade because the other country has a lower opportunity cost of re-allocating its workers out of the production of one good.
- This results in gains in trade for both countries, depending on the final split (see table below)



- PPC diagrams for absolute (left) and comparative advantage (right)

	Good A			Good B			Total Production		
France	10	20	10	7	0	10	17	20	20
Japan	5	0	10	10	20	10	15	20	20
Combined	15	20	20	17	20	20	32	40	40

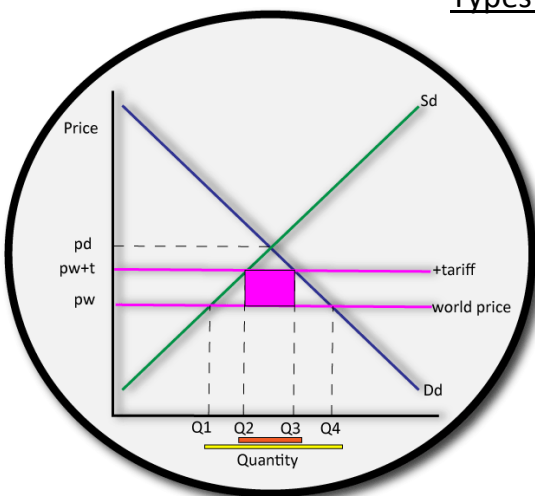
- Above: a table showing how comparative advantage leads to benefits for both countries using diagram 1 above
Red Column = before trade, **Green Column** = after specialization, **Black column** = after trade

Unit 3—International Economics

Problems with Comparative Advantage (HL)

1. Can cause over-reliance on one good—terrible if there is a slump in demand/supply of this good
2. Relies on many assumptions—2 countries, 2 goods, full employment of resources, perfect competition etc... *ceteris paribus* is over-assumed.
3. Does not allow for diversification and cannot respond to changing patterns in the workforce—structurally inflexible
4. Ignores cost of currency (exchange rate) and transportation costs.
5. Assumes free trade is better than protectionism (see below)

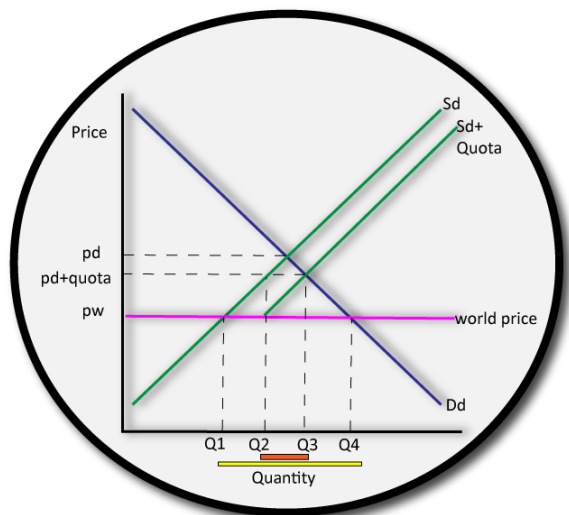
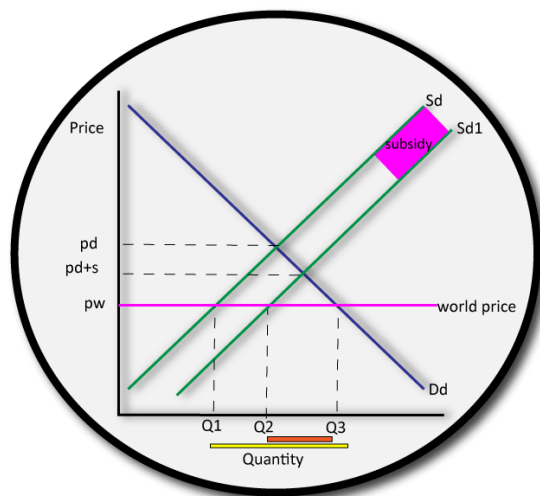
Types of Protectionism



Tariffs (a tax on imports)

- World price (p_w) is below domestic price (p_d) and is elastic due to large number of producers
- At world price we have excess demand ($Q_4 - Q_1$).
- A **tariff** (a specific tax on a good or service) is placed on the good, causing price to rise— $p_w + t$). Excess demand is reduced and imports fall ($Q_3 - Q_2$).
- Consumer surplus falls, producer surplus rises
- Imports fall from Yellow box to Orange box

- Subsidies (a grant to domestic firms)**
- Domestic price is above world price ($p_d > p_w$)
 - Excess demand exists at world price ($Q_1 - Q_3$)
 - The government gives subsidies (donations of money) to firms to increase supply ($S_d - S_{d1}$)
 - Domestic price falls ($p_d + s$). Excess demand falls ($Q_3 - Q_1$)
 - Imports fall from $Q_3 - Q_1$, domestic employment increases ($Q_1 - Q_3$)



Quotas (physical limit to imports) & Voluntary Export Restraints

- Domestic price is above world price ($p_d > p_w$)
- Excess demand exists at world price ($Q_1 - Q_4 = \text{imports}$; the yellow section)
- The government then sets a physical limit on imports
- The exporters thus have a choice: to sell at world price (p_w) or to sell at domestic price (p_d)
- Since they have limited supply (quota) they sell at domestic price, and thus act as a shift in domestic supply
 - $Q_2 - Q_3$ thus shows the quotas
- Domestic employment increases, prices rise from p_w

Unit 3—International Economics

Protectionism (in general)

- Allows for autarky and self-sufficiency in times of trouble—prevents overreliance on one good
- Ensures domestic employment remains high—a government aim. Gives sense of well-being
- Generates welcome tax revenue for the government, which could be ring-fenced
- Allows infant industries to grow and not be stifled by high barriers to entry
- Allows for current account deficit to be corrected
- Allows for greater regulation of goods and services—environmentally and in regard to demerit goods

Free Trade

- Allows for natural allocation of resources—inefficient countries stop producing whilst . Protectionism protects the inefficient!
- Free Trade is fairer—most efficient producers gain
- Protectionism leads to higher prices and a loss of consumer surplus
- Protectionism can have negative knock-on effects. If rubber is protected then the prices are higher and so costs of production for other firms using rubber are higher
- Protectionism leads to trade wars and retaliation
- Protectionism can lead to decreased export competitiveness (see India's Ambassador cars)
- Disadvantages of protectionism specifically depend on *what kind* of protectionism

The World Trade Organization

Aims: to regulate, supervise and facilitate international trade. Born in 1995 out of the GATT agreement (1948).

Methods: Holds bilateral talks (called 'rounds'). Currently holding the Doha Round to focus on developing countries.

Functions:

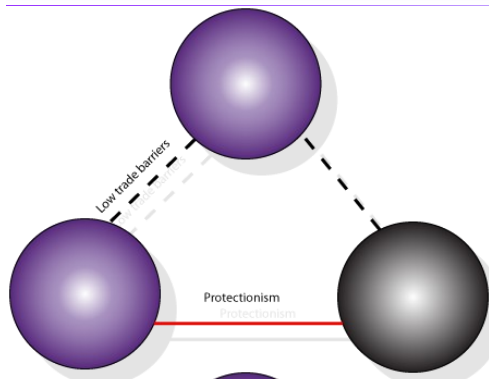
- Oversees the implementation and administration of trade agreements.
Creates a platform for discussion for all countries if in dispute
- Ensures trade remains transparent
- Undertakes research on trade in collaboration with IMF and World Bank
- Creates frameworks for trade based on 4 main principles:
 - 1) **Non-discrimination**—claims that members do not show favouritism in trade for non economic reasons. What one does to one country, one must do to all. National goods should not be given special standing
 - 2) **Binding Commitments**—a list of rules that members agree to, and can only be changed with a fine
 - 3) **Transparency**—requires all members publish their trade figures
 - 4) **Safety**—rules that allow trade to be diminished if it is environmentally or socially unsafe



**WORLD TRADE
ORGANIZATION**

Unit 3—International Economics

Economic Integration

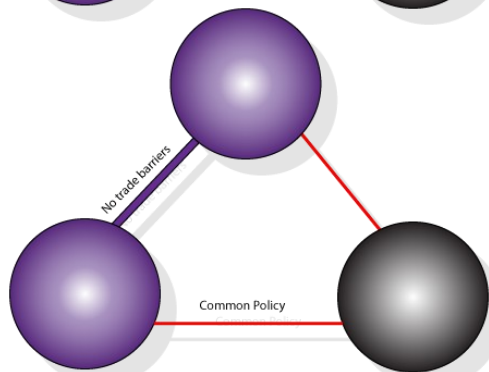


1. Free Trade Area

Example: Asean Free Trade Area (AFTA)

Features:

- Members agree to attempt to reduce trade barriers
- Members are free to choose protectionist policies with non-members

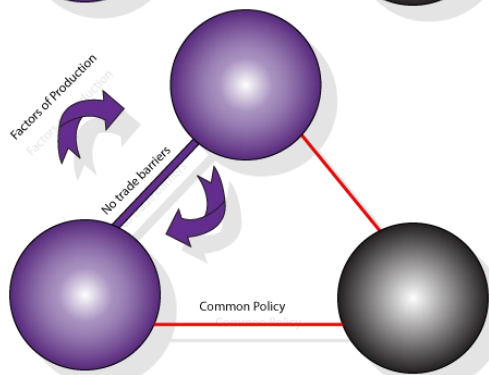


2. Customs Union

Example: East African Community (EAC)

Features:

- Members abolish trade barriers between one another
- Members adopt a common protectionist policy toward non-members

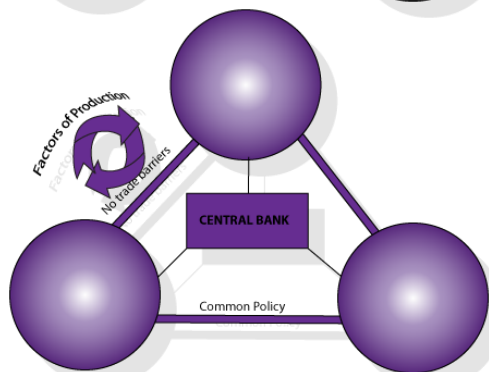


3. Common Market

Example: European Economic Area (EEA)

Features:

- Members abolish trade barriers between one another
- Members adopt a common protectionist policy toward non-members
- Factors of Production have no limitations on movement

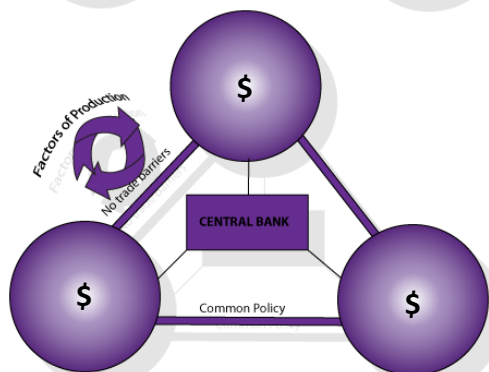


4. Economic Union (= customs union + common market)

Example: the European Economic Union (EEC)

Features:

- Members abolish trade barriers between one another
- Members adopt a common protectionist policy toward non-members and a common external trade policy
- Factors of Production have no limitations on movement



5. Monetary Union

Example: European Monetary Union (EMU)

Features:

- Members abolish trade barriers between one another
- Members adopt a common protectionist policy toward non-members and a common external trade policy
- Factors of Production have no limitations on movement
- A Central Bank is created to control fiscal and monetary targets
- Sovereignty is retained but a single currency is adopted

Unit 3—International Economics

Single Currency Examples: Euro, USSR

BENEFITS of a single currency

- Fixed exchange rates = end of currency instability
- Less bureaucracy and no costs of producing multiple currencies
- Stability = greater business investment; safe against future fluctuations
- Low inflation and lower interest rates within the currency increases borrowing and growth
- Ensures fiscal discipline
- Gives greater power to smaller nations
- Economic integration = less likelihood for conflict



DRAWBACKS of a single currency

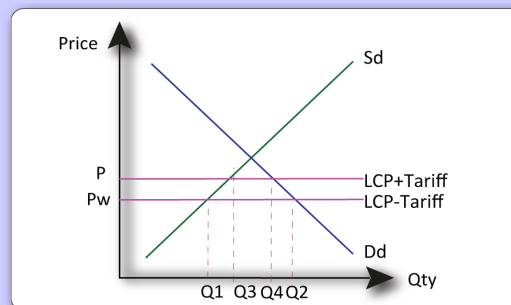
- Countries at different stages in economic spectrum are locked into one exchange rate
- Cannot use exchange rate to alleviate specific domestic problems
- Loss of national sovereignty
- Total loss of monetary policy and potentially fiscal/supply side if Central Bank is allowed.
- Historically single currencies fail (USSR)
- Certain countries could dominate the Central Bank.

Trade Creation (HL)

- If a country (say UK) formerly set tariffs but needed a certain good, it would buy at the price of lowest cost producer + tariff (LCP+Tariff—let's imagine this is China). This supply line is perfectly horizontal owing to the volume and comparative advantage this country has.
- If the UK then decided to start a customs union (or any other trade bloc) with the lowest cost producer (China), they would aim at eliminating tariffs. They would now buy at the lowest cost price without the tariff (LCP—Tariff).
- As a result of this, they will increase imports from Q1-Q2 to Q3-Q4.
- At the same time, the same thing is happening for a good that the country is exporting to their new trade bloc member. They are thus exporting a greater amount too.
- We can therefore say that trade has been created between the two countries as a result of loss of tariffs.

Effects

- Lower prices for consumers in both countries
- Greater trade (more imports and exports)
- Loss of government revenue (unless it is exporting goods)
- Greater income equalities
- Increased specialization (countries produce the good they have comparative advantage in)
- Increased gains from economies of scale as a result of specialization
- Less domestic supply for certain goods

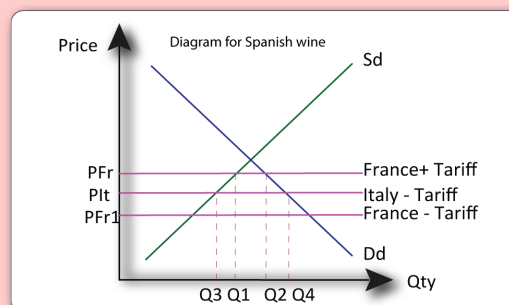


Trade Diversion (HL)

- Imagine now three countries produce a good. Spain is the domestic country, in this example. France and Italy also produce the same good as Spain - wine.
- Before joining a trade bloc, Spain has tariffs on any foreign wines. Nevertheless, even with the tariff, France enjoys a comparative advantage in wine and produces at a much lower price than Italy with the tariff (not shown on diagram). Spain's domestic wine prices are found at equilibrium.
- As a result, there is a high demand for French wine, even though it carries a tariff. Spain thus imports Q1-Q2 of French wine, and imports no Italian wine. Domestically Spain produces up to Q1 of wine.
- If Spain now decided to join a customs union with Italy, it would eliminate the tariff on Italian wine. The French wine though, would still have a tariff, as they are not in the union. As a result, Italian wine would be comparatively cheaper than French wine.
- Consumers would now import Q3-Q4 of Italian wine and the original Q1-Q2 of French imports would be diverted to Italian imports.
- Trade will have been created (Q3-Q4 is greater than Q1-Q2) and diverted (away from France and into Italy); thus we say trade diversion is a form of trade creation.
- The only difference is that Spain would have been even better off had they formed a trade union with the lowest cost producer (France) as the price would be even lower (France-Tariff)

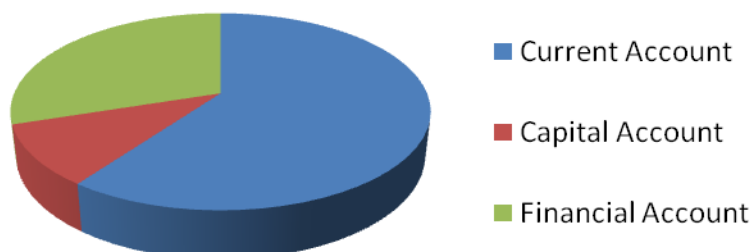
Effects

- Lower prices for consumers (but not as great as they could be)
- Greater trade (more imports and exports) (but not as great as could be)
- Loss of government revenue (unless it is exporting goods)
- Greater income equalities (but not as great as could be)
- Increased specialization (countries produce the good they have comparative advantage in)
- Increased gains from economies of scale as a result of specialization (but not as great as it could be)
- Less domestic supply for certain goods



Unit 3—International Economics

The Balance of Payments

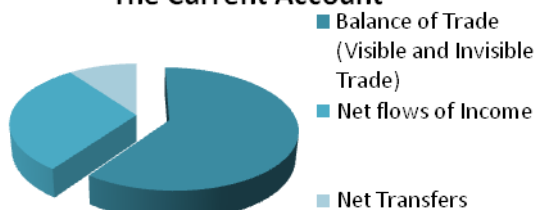


The Balance of Payments: a statistical record of all the international financial transactions a country makes in a year

Credits - money generated through the sales of exports

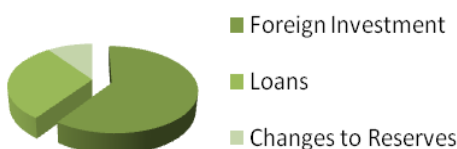
Debits—money lost through the purchasing of imports

The Current Account



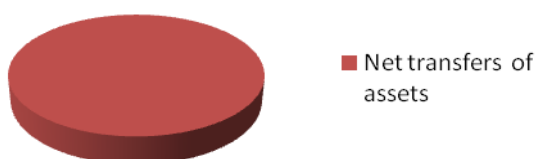
- Largest component of BOP
- Includes Balance of Trade (the value of visible exports—value of visible imports)
- Net flows of income = Money earned abroad—money sent away
- Net transfers = items such as donations, aid.

The Financial Account



- Direct Investment—For example if Bill Gates invested in a Costa Rican company this would be a credit to Costa Rica
- Portfolio Investment—investments in stocks and shares.
- Reserves—if the UK government sold \$ it would receive \$ as a credit, and vice versa.

The Capital Account



- Transactions in non-produced, non-financial assets—for example when you sell the rights to fishing off your coast for \$400m, this would be a credit. The fish, however, would now no longer belong to you. Mining rights are other examples.

How the Balance of Payments Stabilize

The BoP will always be zero as any debits in one section are matched by credits in other sections.

Thus: current account = capital account + financial account + errors and omissions

If a country finds that it has spent more than it has received in trade then it has a balance of payments **deficit**

If a country finds that it has spent less than it has received in trade then it has a balance of payments **surplus**

To ensure the BoP is zero, a government can intervene in 2 **interventionist** ways:

- The Central Bank can balance the trade by buying or selling foreign reserves (financial account)
- Changes to the exchange rate

Also, a floating exchange **naturally eliminates surpluses or deficits**.

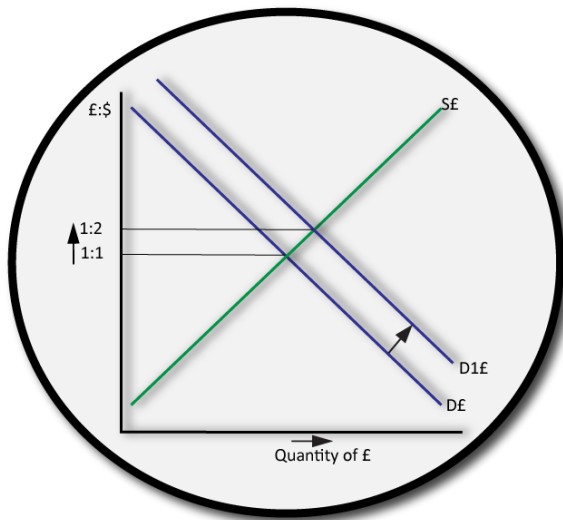
If the USA exports more goods than it imports then there is more credit than debit vis-à-vis trade. The USA has a balance of payments **surplus**. The US dollar is highly demanded, causing it to appreciate by (for example) 10%. As a result, there is a proportional fall in the US's exports as they are now more expensive.... Causing demand for the dollar to depreciate and thus the exchange rate to stabilize once more.

Unit 3—International Economics

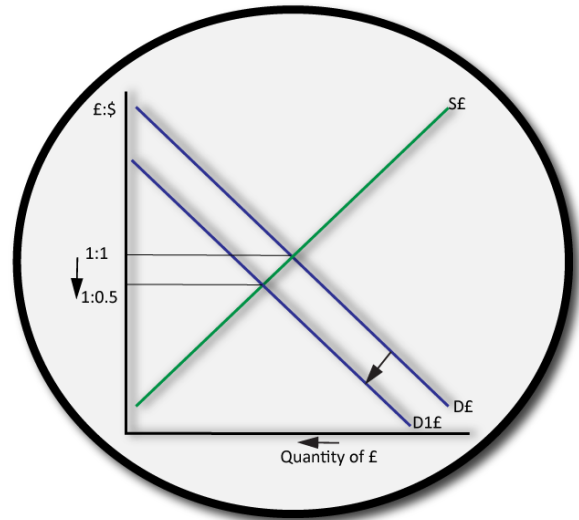
Exchange Rates— appreciation and depreciation

- Currencies are goods and goods hold value
- Currencies hold value **in relation to other currencies**
- If a currency is **strong**, then 1 unit of that currency, can buy many units of another currency
- If a currency is **weak**, then 1 unit of that currency, can buy less units of another currency
- When currencies naturally get stronger they **appreciate**
- When currencies naturally get weaker they **depreciate**

Appreciation of Currency through increased Demand



Depreciation of Currency through decreased Demand



Exchange rates are determined by how much a currency is **supplied** or **demanded** on the **foreign exchange market**

- Remember; in any purchase there are two things that happen
 1. Domestic currency is supplied
 2. Foreign currency is demanded



Unit 3—International Economics

Different Exchange Rates

Floating Exchange Rates (diagram 1)

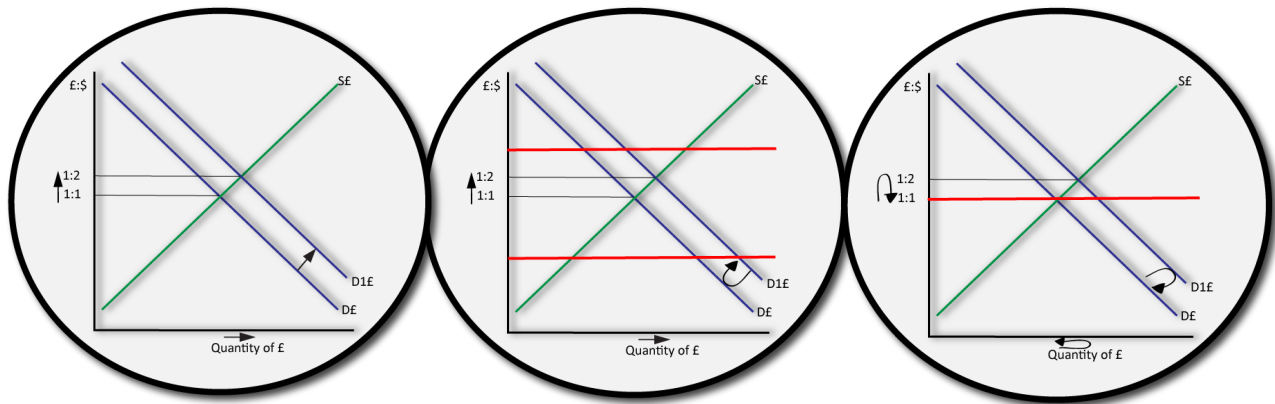
- Function according to the laws of demand and supply
- Currencies are allowed to appreciate and depreciate as high and low as necessary
- No government intervention

Managed Exchange Rates (diagram 2)

- Function as floating exchange rates but within certain limits
- Currencies are allowed to appreciate and depreciate within boundaries
- Government intervention if appreciate is deemed too high, or depreciation too low

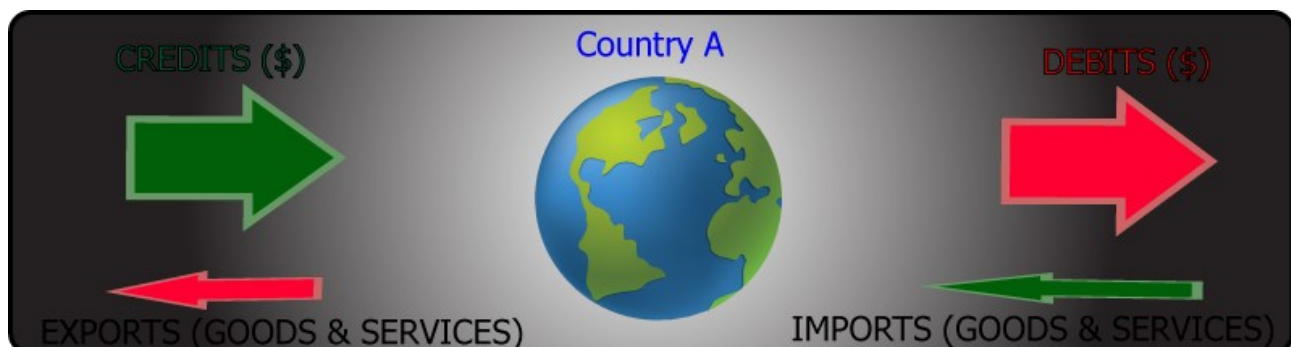
Fixed Exchange Rates (diagram 3)

- Functions according to government discretion
- The government sets the exchange rate
- If it appreciates or depreciates, the government intervenes to buy or sell domestic currency—known as **revaluation** or **devaluation**.



Relationship between floating exchange rates and balance of trade

The two should balance each other out: when the exchange rate appreciates, goods, domestic goods become expensive, countries stop demanding them (and therefore the currency too), so the exchange rate depreciates.... Causing goods to become cheaper, so countries demand more of them (and therefore the currency too) so the exchange rate appreciates.... Etc



Unit 3—International Economics

Benefits of Floating Exchange Rates

- 1) Allows for no intervention
- 2) No need for deflationary domestic policies
- 3) Buffer to system shocks
- 4) Pure economics— “invisible hand”

Problems with Floating Exchange Rates

- 1) Speculators can hold it to ransom
- 2) Hard for businesses to create future projections
- 3) Huge fluctuations can cause great damage

Benefits of Fixed Exchange Rates

- 1) Allows for stable investment
- 2) Should lead to increased trade—stability
- 3) Should illuminate speculators

Problems with Fixed Exchange Rates

- 1) Needs constant intervention
- 2) Assumes government knows best rate
- 3) Misallocates Resources
- 4) Cannot use exchange rate as a tool of domestic policy
- 5) Successive shocks deplete reserves

Benefits of Managed Exchange Rates

1. Flexible without being spineless
2. Gives time for government to prepare for intervention

Problems with Managed Exchange Rates

- 1) Encourages government manipulation
- 2) Dirty Floating



Purchasing Power Parity Exchange Rates (HL)

- Remembered as ‘how much bang you get for your buck’
- Theoretically \$1:Y5 should mean that whatever \$1 buys in the US, Y5 buys in China
- Appreciating/Depreciating currencies should thus show inflation/deflation
- This is not true though—exchange rates fluctuate for a variety of reasons AND prices may differ internationally owing to:
 - A) Availability
 - B) Trade restrictions
 - C) Perishable Goods
 - D) Location
- We thus use Purchasing Power Parity Exchange Rates to determine how far your money can go, internationally.
- PPP Exchange Rates are monitored by international organizations and state the value of all currencies in relation to the dollar and take into consideration the above information.
- Only PPP Exchange Rates thus tell us of inflation/deflation

Unit 3—International Economics

Current Account Deficit Problems (HL)

- **Macroeconomic Imbalances** - suggests local population is living beyond their means
- **Structural Weaknesses**— suggests local economy is very weak, and that inflation is high. Fiscal policies can only hurt further.
- **Domestic Loss**—the more is imported, the more foreign firms gain in the domestic market, causing imports to continue to rise.
- **Investment Flight**—businesses worry about the safety of their investments and stop spending. Credit ratings may be downgraded.
- **Large accumulation of debt**—governments may decide to take out loans, which will have to be repaid
- **Opportunity Cost**—sacrifices must be made in order to balance current account... austerity
- **Currency Depreciation**—flooding of currency may occur if current account debt can't be repaid.
- **Tight Belts**—unpopular to face deficit for politicians
- **Asset Sales**— countries may seek short-term sales as a solution to long term problems

Current Account Surplus Problems (HL)

- Implied lack of consumption
- Implied government inefficiency
- Implies unbalanced international market
- Speculation
- Exchange rate appreciation

Methods of Correction for Budget Deficit and Consequences (HL)

- Expenditure Reducing**—Reducing AD through contractionary fiscal policy
- Expenditure Switching**— Moving from buying imported goods to buying domestic goods. Consequences include inflation but employment
- Expansionary AS policies**— desirable; increased efficiency = lower domestic prices, but it is long term.
- Depreciation**—if currency depreciates then exports become cheaper. If imports are necessary then this leads to imported inflation though. Keeping currency undervalued = dirty floating, seen as unfair but boosts exports. Can lead to speculators buying up currency and pushing it up though.
- Import Substitution** —through protectionism reduces imports, unless they're inelastic. Could lead to retaliation. See protectionism unit for costs of protectionism. Reduces advantages from specialization. Means higher prices for consumers.
- Limiting currency transactions** - if global supply of your currency is limited, it cannot be purchased en masse. This though is not ideal as it restricts growth and is a misrepresentation of true value.

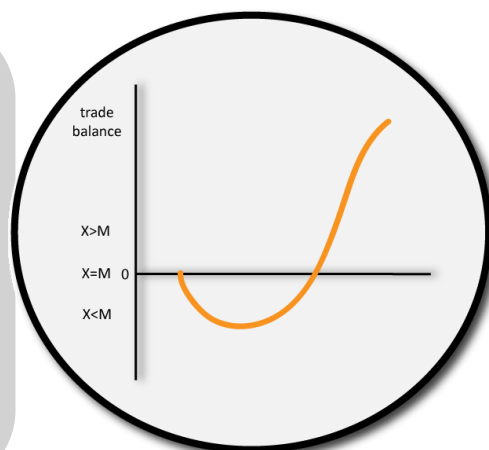
The Marshall Lerner Condition ($N_x = X - Qe$) (HL)

- Invented by A.Marshall and A.Lerner.
- States that only once elasticity for imports and exports is determined, can extent of devaluation/revaluation be considered.
- By knowing the elasticity of imports&exports, the current account deficit can be improved
- If a government finds that the sum of its imports and exports are inelastic then it should devalue its currency to a small extent in order to improve its balance of trade deficit

Unit 3—International Economics

The J-Curve (HL)

- Reinforces Marshall-Lerner Condition
- Claims that when currencies are devalued, they will experience an immediate worsening in the terms of trade and current account deficit
- This is due to inelastic import and exports owing to time-lags (around 6months). After this, old habits are broken and they become elastic
- After 6months, an improvement is seen on the current account and BOT—shown as the upward sloping portion of the curve.



Terms of Trade

- This tries to explain the relationship between the price a country gains from its exports and the price it pays for its imports. Uses following formula:

$$\text{Terms of Trade} = \frac{\text{average price of exports}}{\text{average price of imports}}$$
- If prices of imports rise and prices of exports stay the same, the terms of trade **deteriorate**
 - If prices of exports rise and prices of imports stay the same, the terms of trade **improve**
 - Price indices help show us terms of trade balance
- Terms of trade tells us about global output and distribution, when taken into account with elasticities.

Measuring Terms of Trade (HL)

This is done through the use of Price Index's. We use the following equation to measure the terms of trade:

$$\frac{\text{Price Index of Exports}}{\text{Price Index of Imports}} \times 100$$

Price index's are just an easy way of showing comparisons. To do this we must first:

1. Set a base year. Give this base year the Price Index of 100
2. Calculate the percentage change between the new year and the base year.
3. To do this we take the **new year value — the old year value / old year value x 100**
4. We then add the base year price index (always 100) to this price index and are able to see change easily

Unit 3—International Economics

Terms of Trade Continued (HL)

Reasons for changing terms

Short
Term

- Changes in demand for X or M
- Changes in supply for X or M
- Changes in Inflation
- Changes in Exchange Rates

Long-
Term

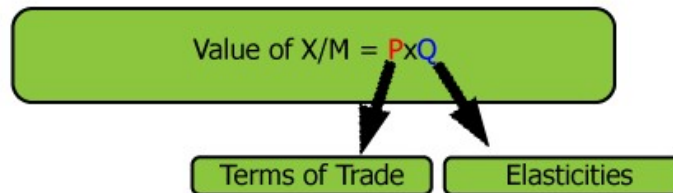
- Protectionism
- Changes in income (or YED)
- Technology
- Productivity

General Terms of Trade Rules

- When there is a Terms of Trade **improvement**, the more inelastic our exports relative to imports, the greater our Balance of Trade benefits. If more exports are being sold, we know AD for that country will shift outwards and shows us economic growth.
- When there is a Terms of Trade **worsening**, the more inelastic our imports relative to exports, the worse our balance of trade becomes. If more imports are being bought, we know AD for that country will shift inwards and shows us less economic growth.

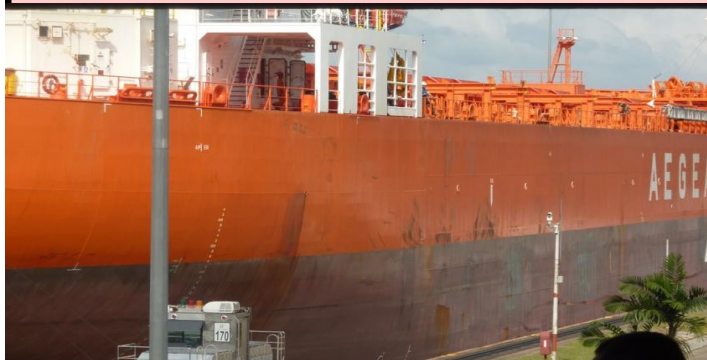
Another way of seeing Terms of Trade

If the value of Imports (or Exports) is determined by Price x Quantity then:
Terms of Trade tells us about the **Price** component and Elasticities tell us about the **Quantity** component
When viewed together, we understand the impact it has on our Balance of Payments



Consequences of Deteriorating Terms of Trade

- Decreased AD (X-M is a component of AD, so if X decreases or M increases, so too does AD)
- Lower economic growth (Less AD means less being produced)
- Unemployment (Less being produced means less workers needed)
- Disparities in wealth (Other countries generate wealth, whilst yours doesn't)
- Over reliance on primary industry (cheapest to produce, so easy to fall back on)
- Less variety of goods within country (as you cannot import so cheaply)



Unit 3—International Economics

Reasons for short-term fluctuations in Terms of Trade (HL)

- **Rapid Growth of BRICS economies**—Brazil, Russia, India, China and S.Africa have all contributed to huge demand for hard commodities and rare earth metals, owing to their rapid industrialization. This has caused commodity booms (when demand for commodities grow rapidly)
- **Western move toward sustainable development**—many western countries are moving away from non-renewable resources toward renewable ones, e.g. ethanol in the USA. This causes major growth for renewable commodities, and forces producers out of other commodities, resulting in a potentially higher price for both
- **General rise in oil prices**—as oil is owned by a few producers who act as an oligopoly, and seeing as it is incredibly inelastic but also scarce, oil prices are generally rising, causing a rise in the value of imports, which are more industry-heavy than exports for developing countries
- **Growth in luxury product availability**—the rise of communication and transport to emerging markets has made items such as smart-phones high in demand. This has led to a commodity boom for rare earth metals, causing X prices to rise greatly.

Impacts on importing countries:

1. Terms of Trade generally deteriorate but fluctuate according to above conditions
2. Panic buying over rising prices leads to greater increases in prices
3. Income inequalities worsen—purchasing power falls
4. Importing developing countries suffer most as their loss is greater compared to MEDCs

Impacts on exporting countries:

1. Terms of Trade generally improve but can fluctuate widely depending on above conditions
2. Over-reliance on commodity industries; unbalanced, unprotected economy; lack of diversification
3. Gains from exports often leave the economy owing to expenditure on luxury imports
4. Fluctuating terms of trade lead to fluctuating exchange rates and a lack of investment

Remember, short term rises give way to long-term deteriorations.



Unit 3—International Economics

Test-Yourself Questions

- 1) 'Free Trade is more desirable in the long run than protectionism' Evaluate this view
- 2) 'The recent troubles in Greece show that monetary unions and single currencies are unsustainable' Evaluate this argument.
- 3) Discuss who gains and who loses when a tariff is imposed on a good
- 4) Illustrate the effect of rising interest rates on an economy's exchange rate (use 3 diagrams)
- 5) Identify the differences between the different accounts in the balance of payments
- 6) Using diagrams, explain how exchange rates should always automatically adjust in the long run
- 7) 'A floating exchange rate is theoretically more desirable than a managed exchange rate, but realistically the opposite is true.' Evaluate this statement.
- 8) Evaluate the consequences of a sustained budget deficit and suggest ways to correct this.
- 9) 'A terms of trade deterioration will always lead to a deterioration on the balance of trade.' Discuss
- 10) Evaluate why developing countries face deteriorating exchange rates in the long run and why these are disguised in the short-run.

Your Notes

Our Tips:

- 1) Draw the diagrams well—they tell most of the answers you need!
- 2) Revise, revise, revise. We know when you're blagging.
- 3) 'Evaluate' means *say something: have an argument*. Don't just list and explain.
- 4) Use our website www.i-study.co : it goes into more depth. Use your books too!